

KITAMURA, et al. Q67880
ULTRASONIC-WELDING APPARATUS< OPTICAL
SENSOR AND ROTATION SENSOR FOR THE
ULTRASONIC -WELDING APPARATUS
Filed January 16, 2002
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FIG. 1

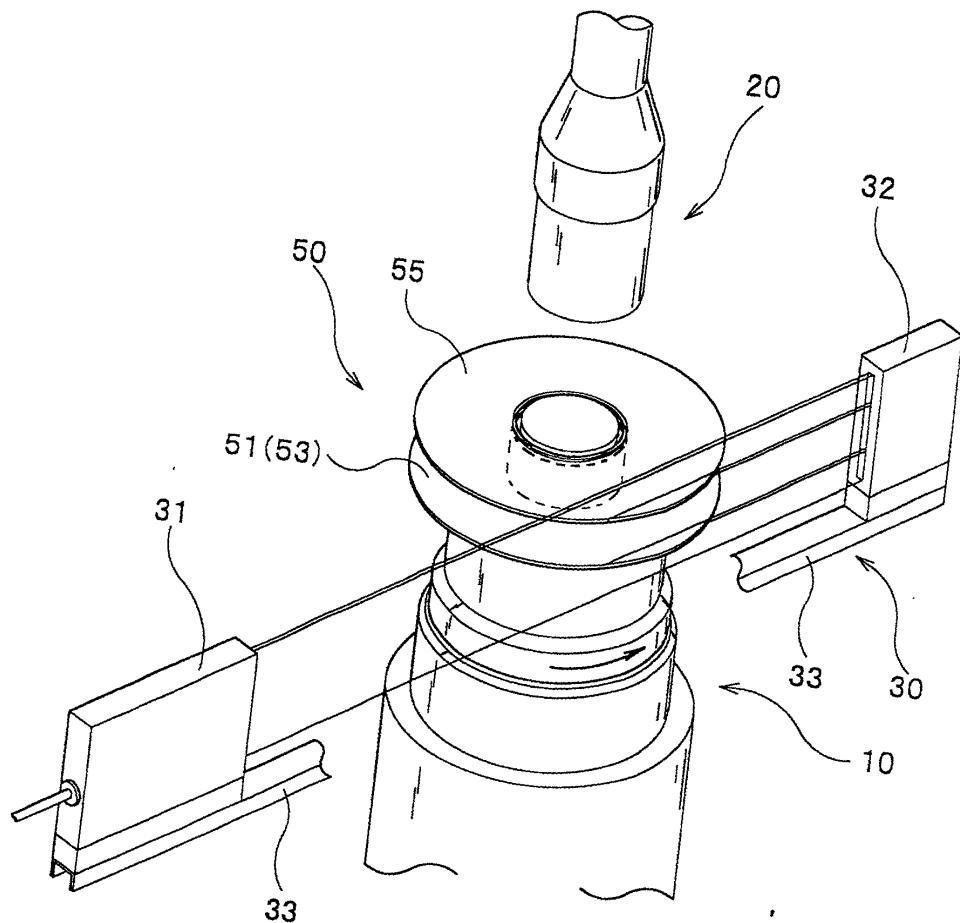


FIG.2

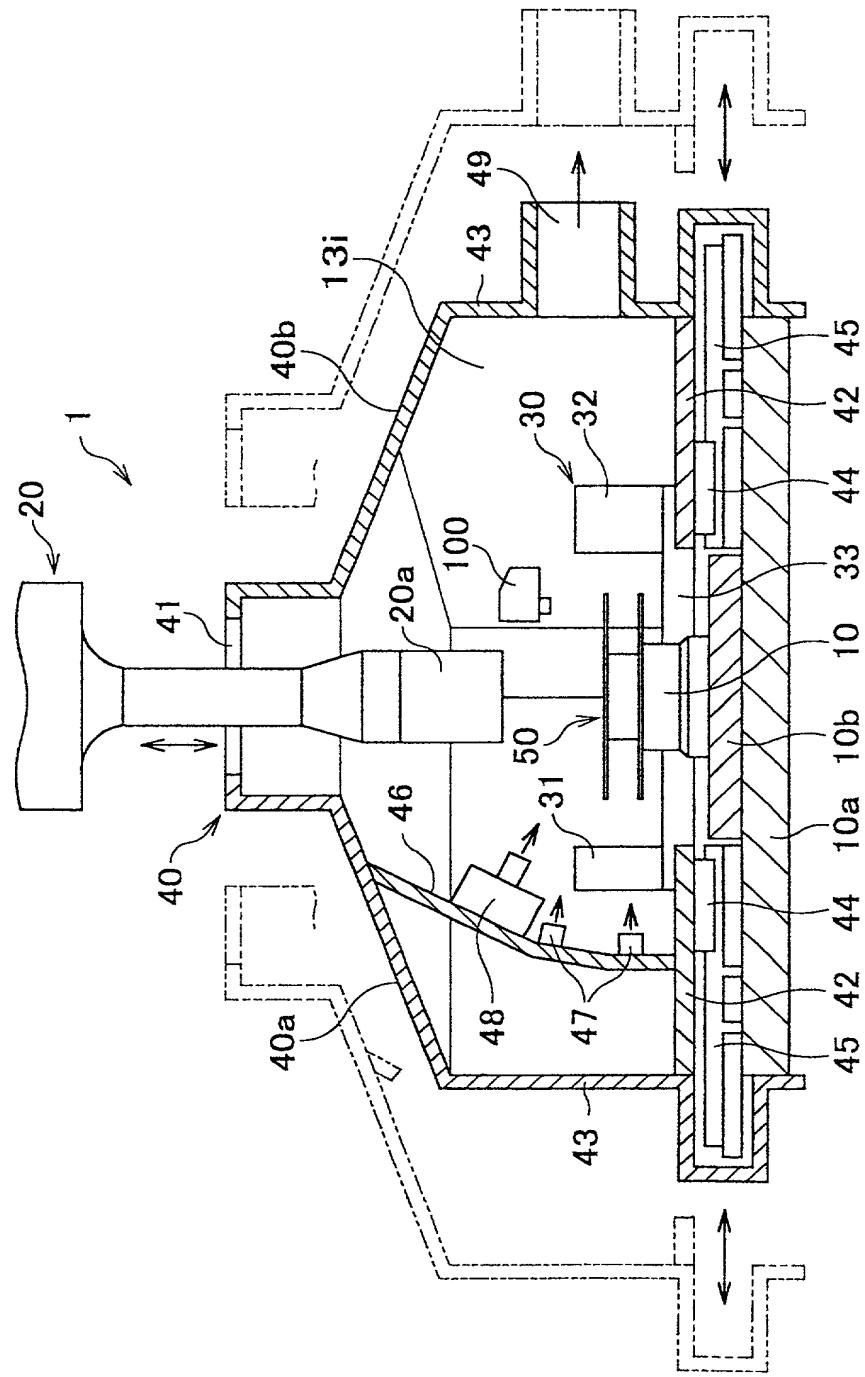


FIG.3

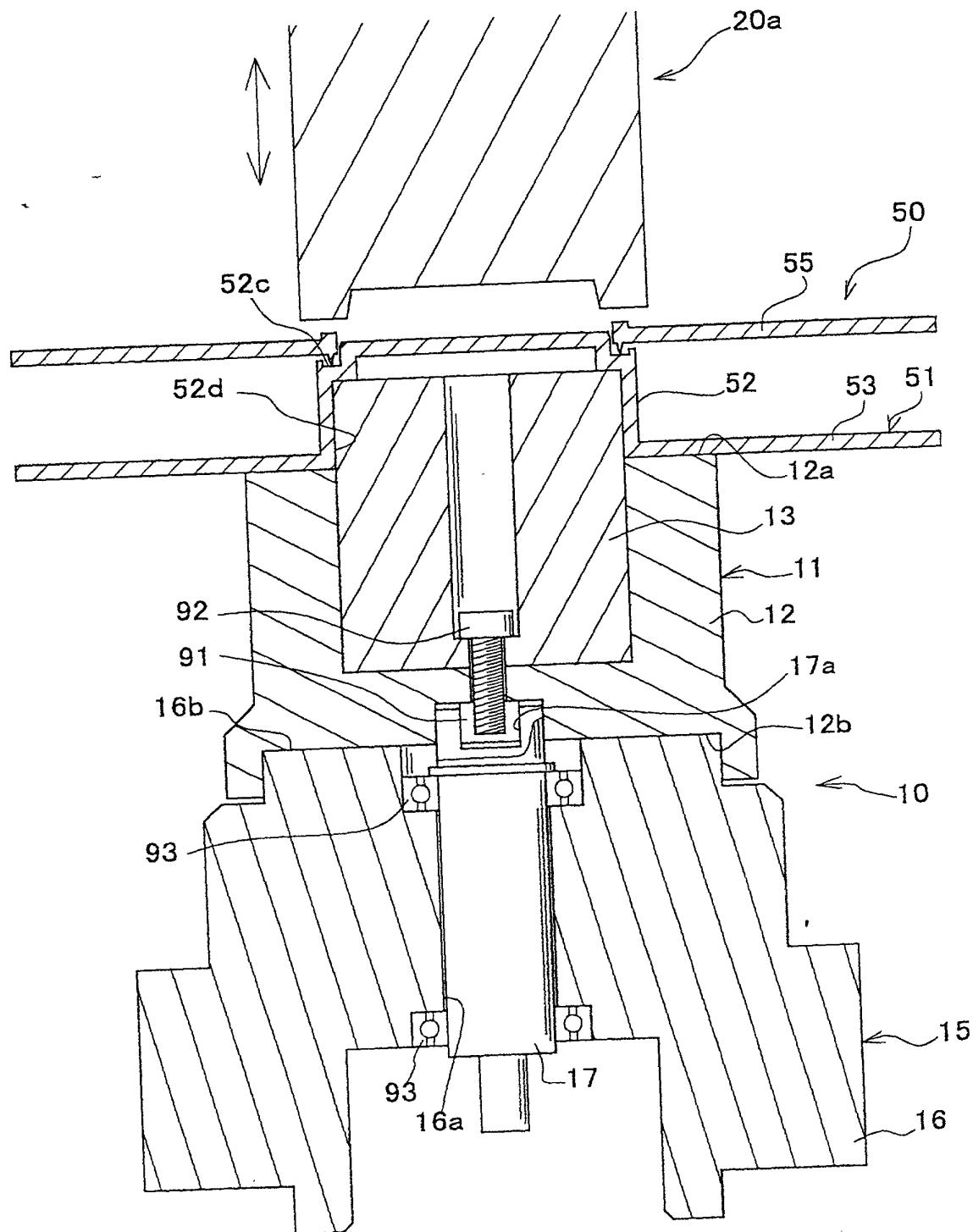
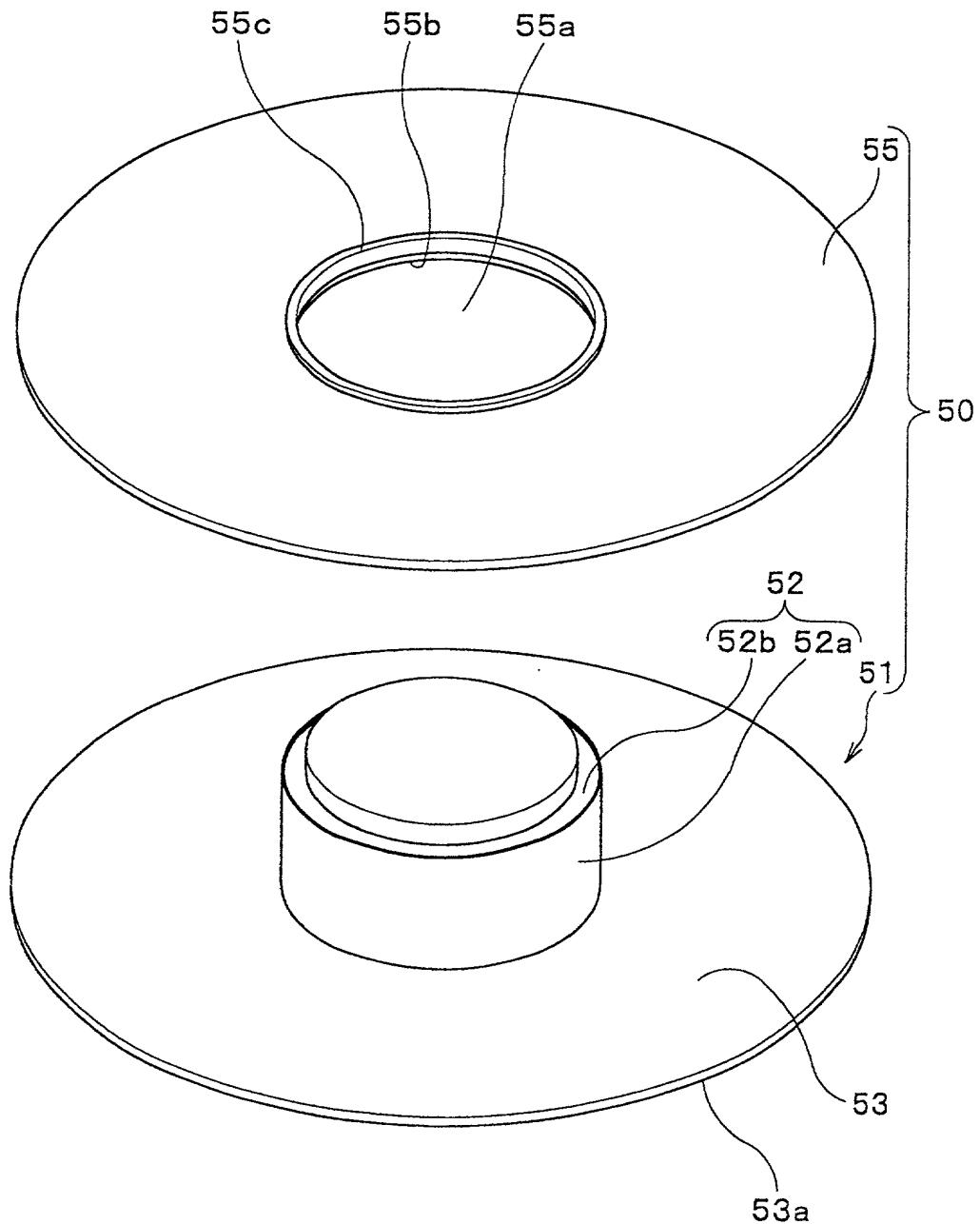


FIG.4



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FIG.5

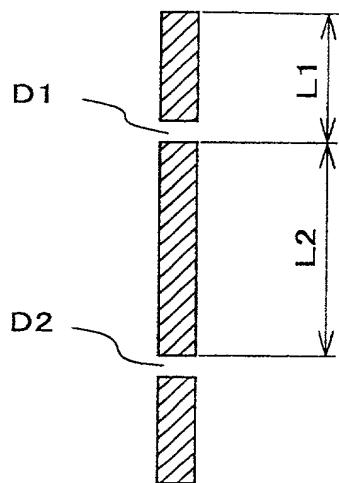
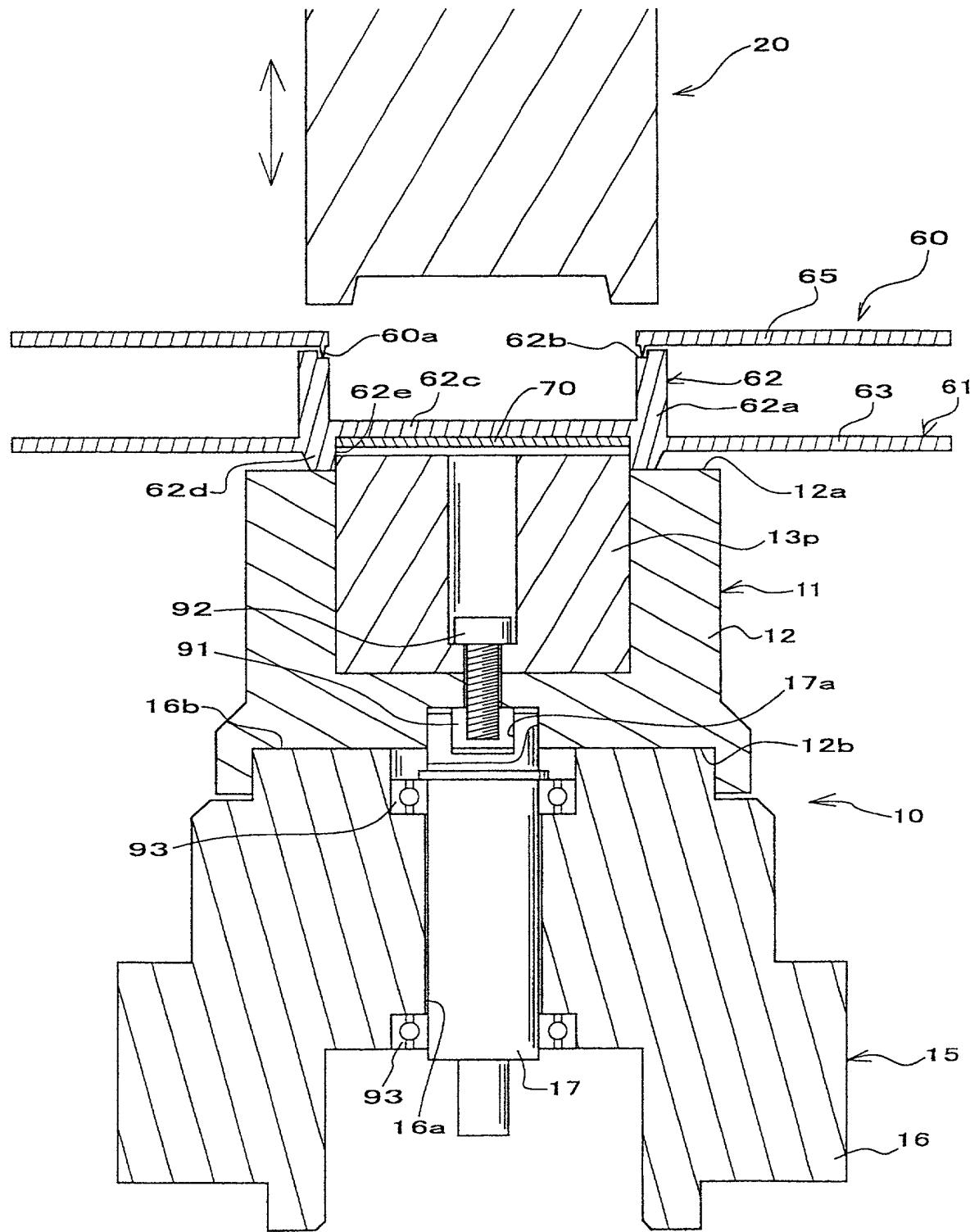


FIG.6



4,004,602,6 - 0,3,16,0,0

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FIG.7

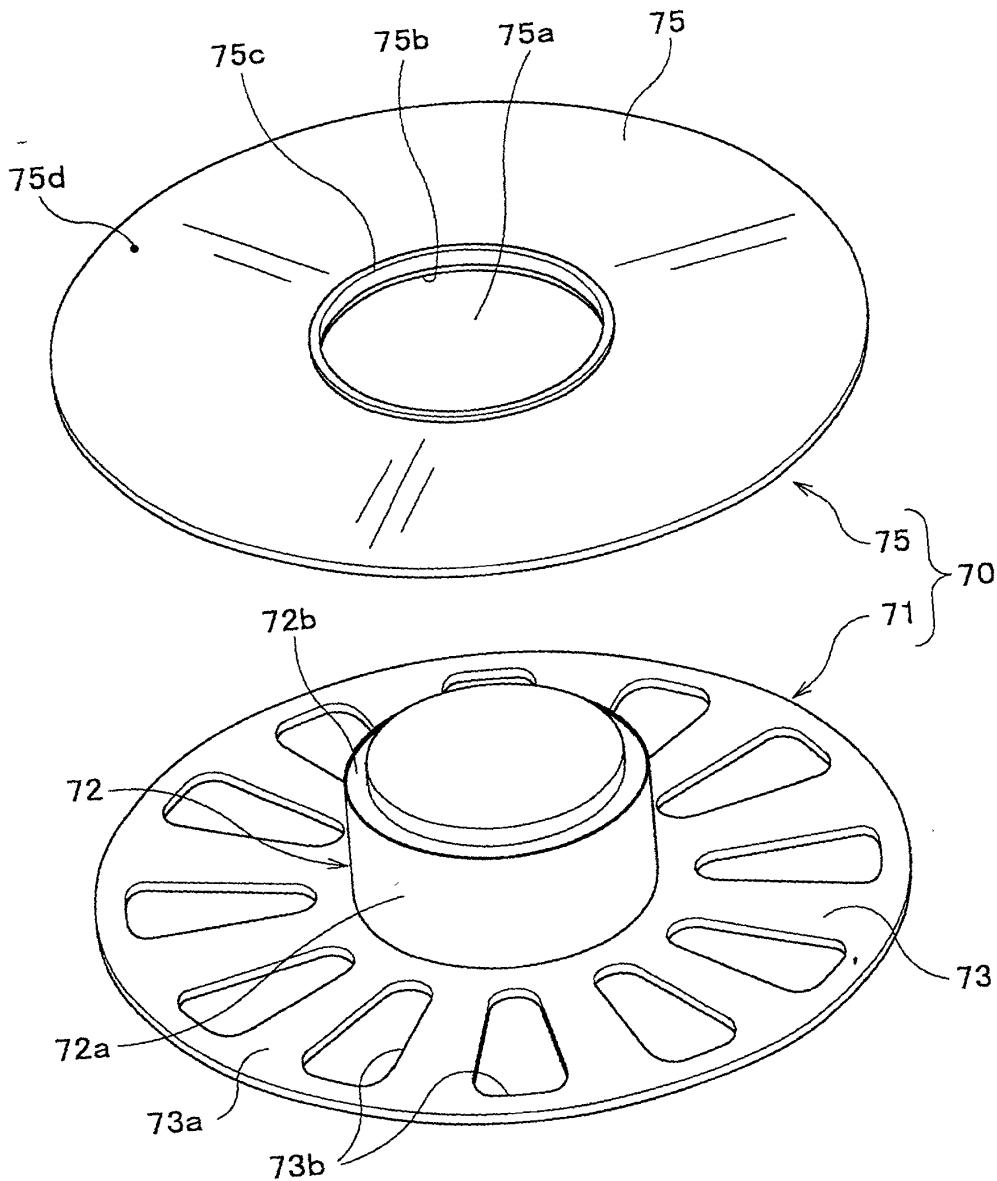
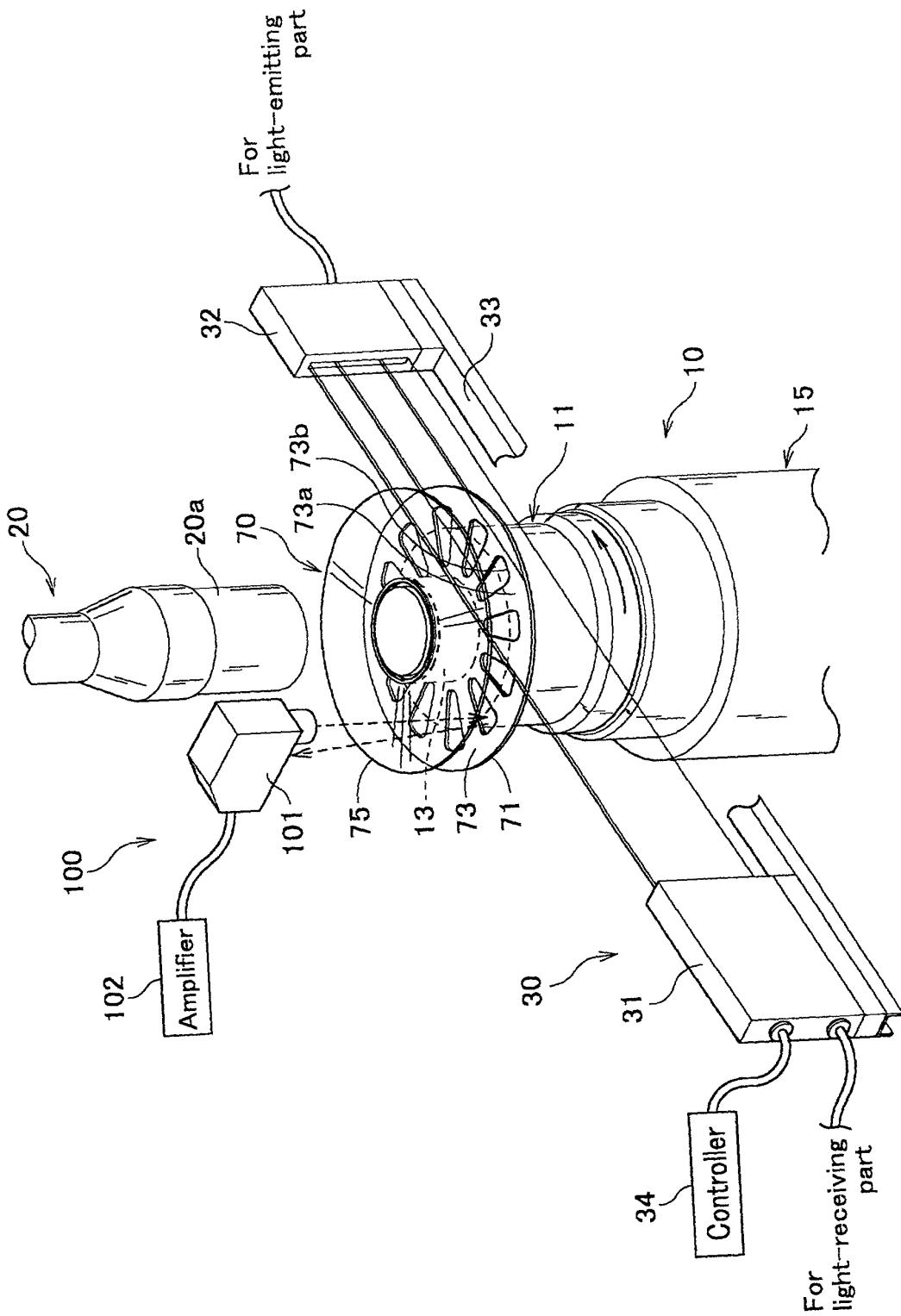


FIG.8



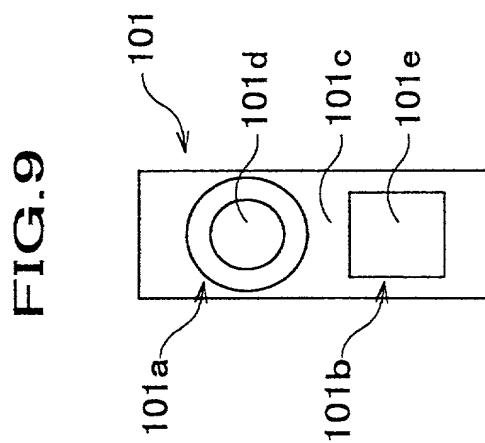
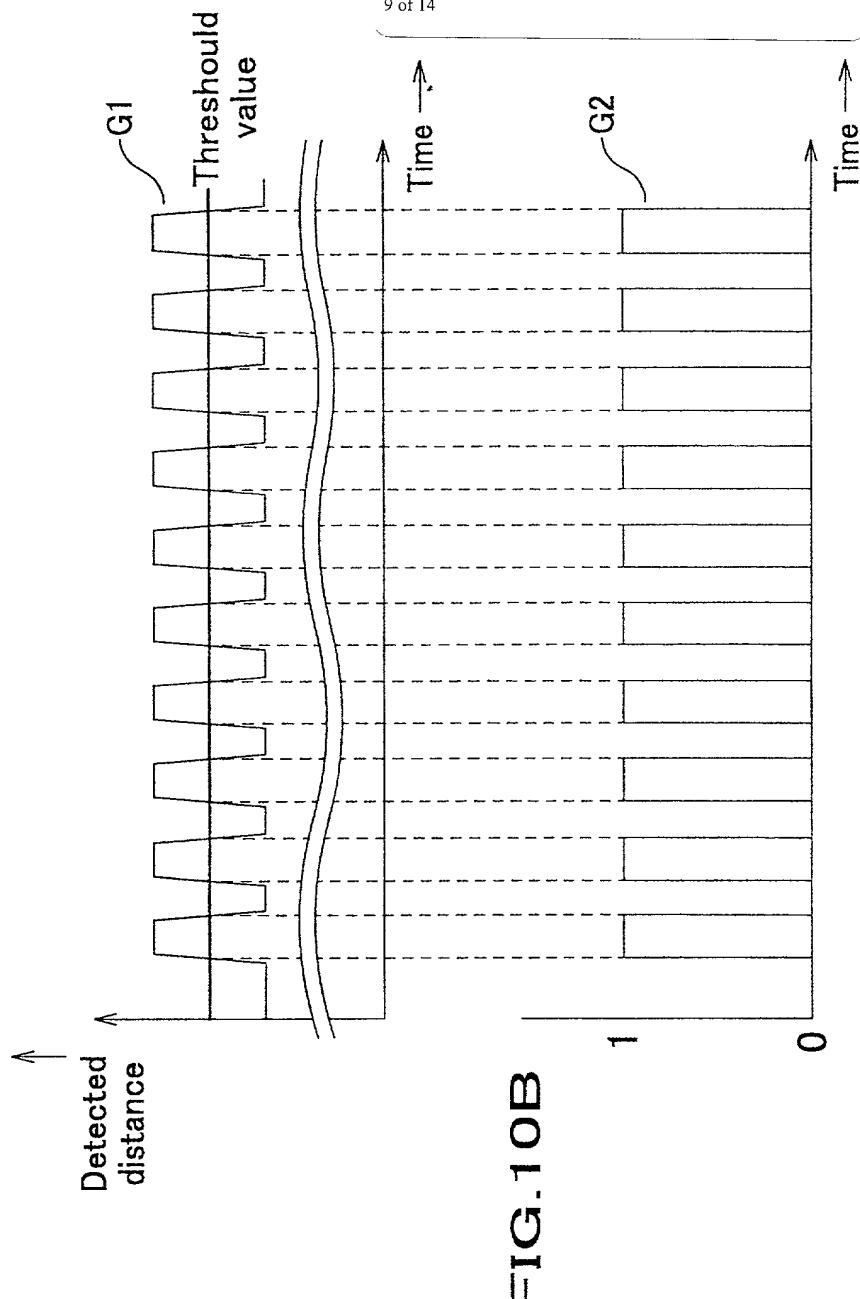
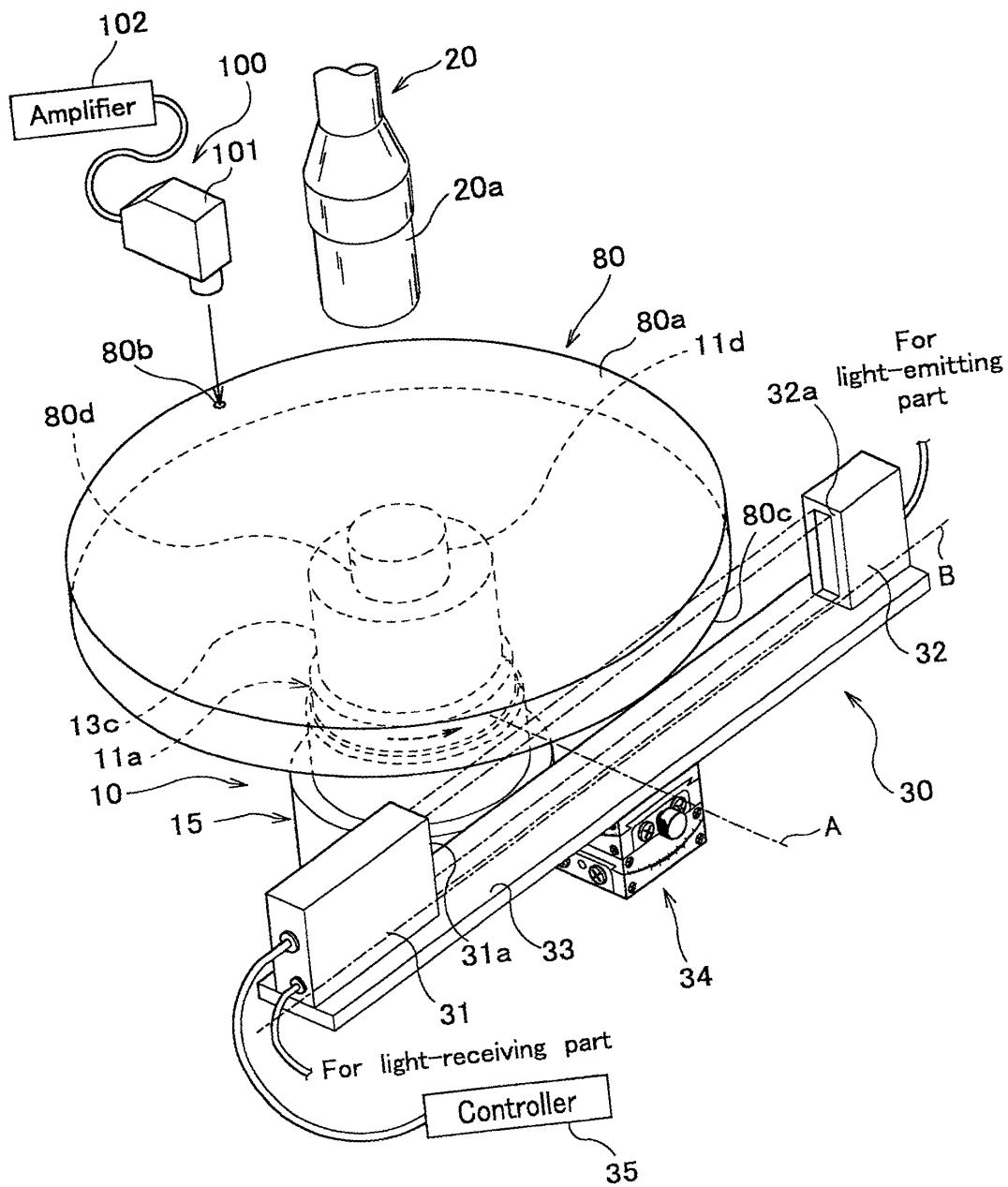


FIG. 10B

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FIG.11



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FIG.12A

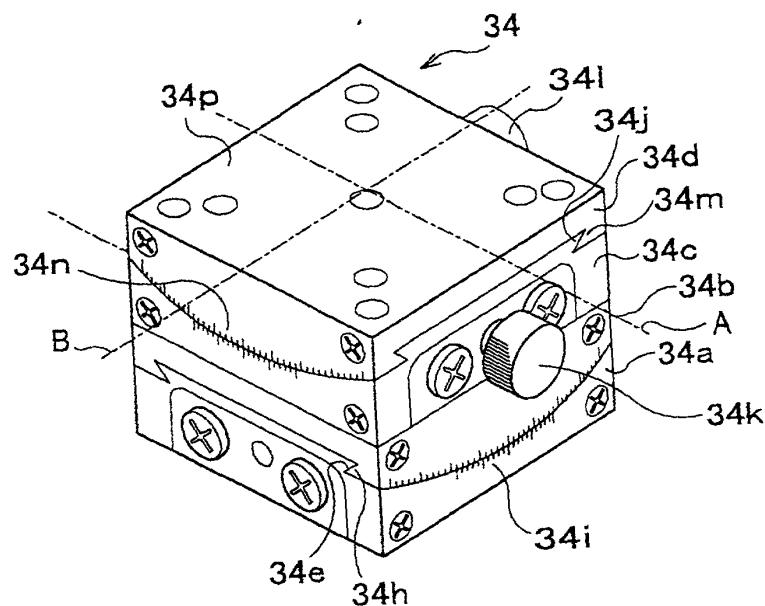


FIG.12B

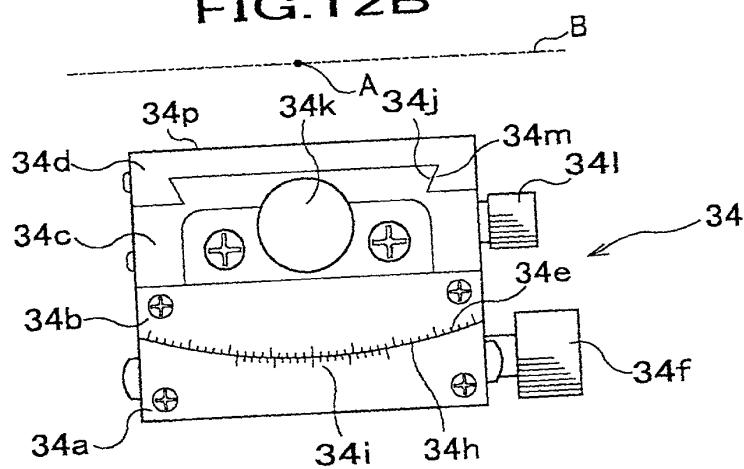


FIG.12C

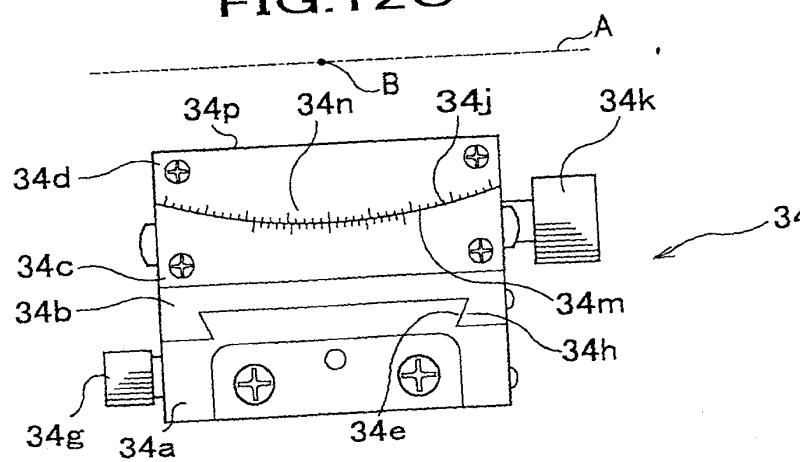


FIG. 13

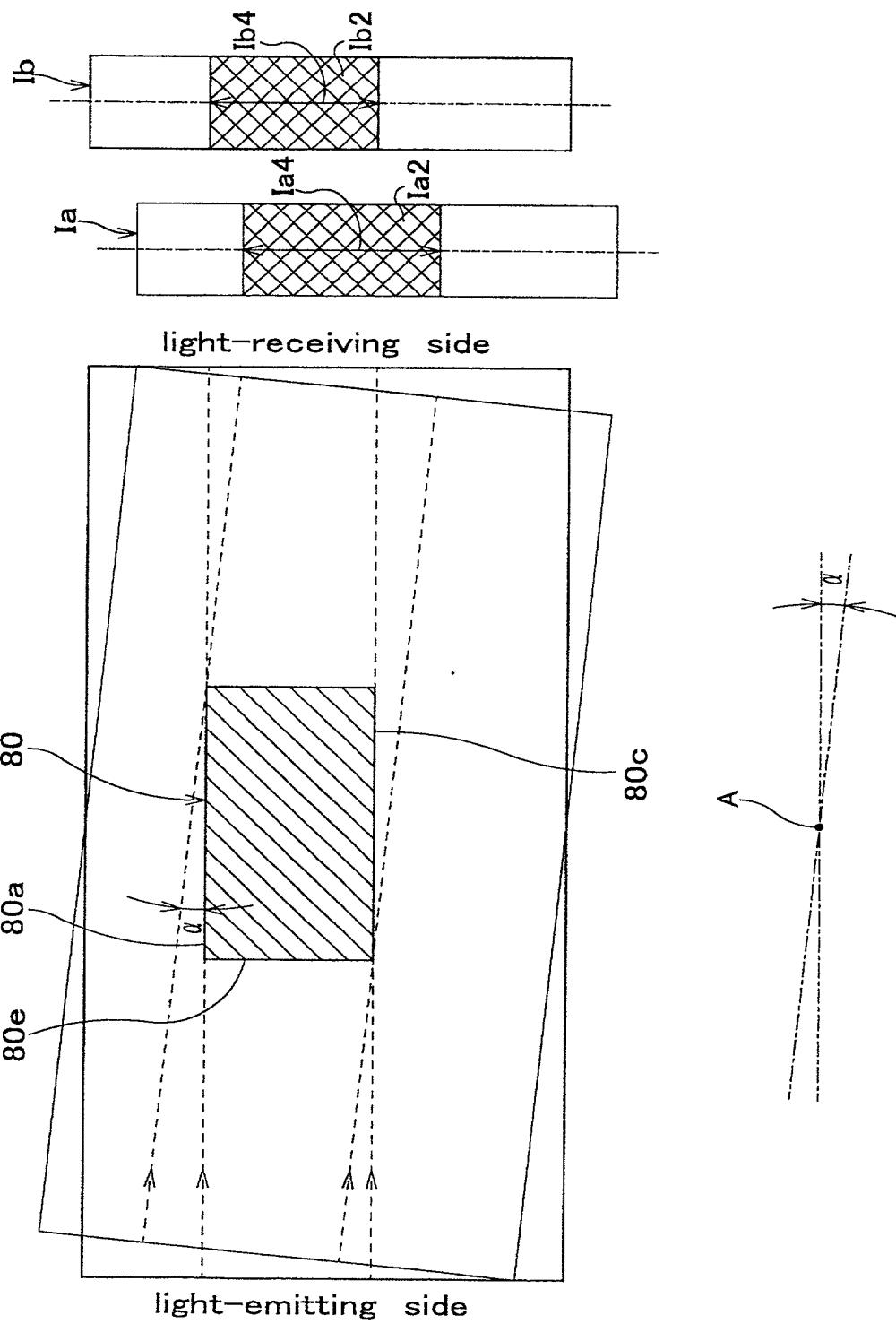


FIG. 14

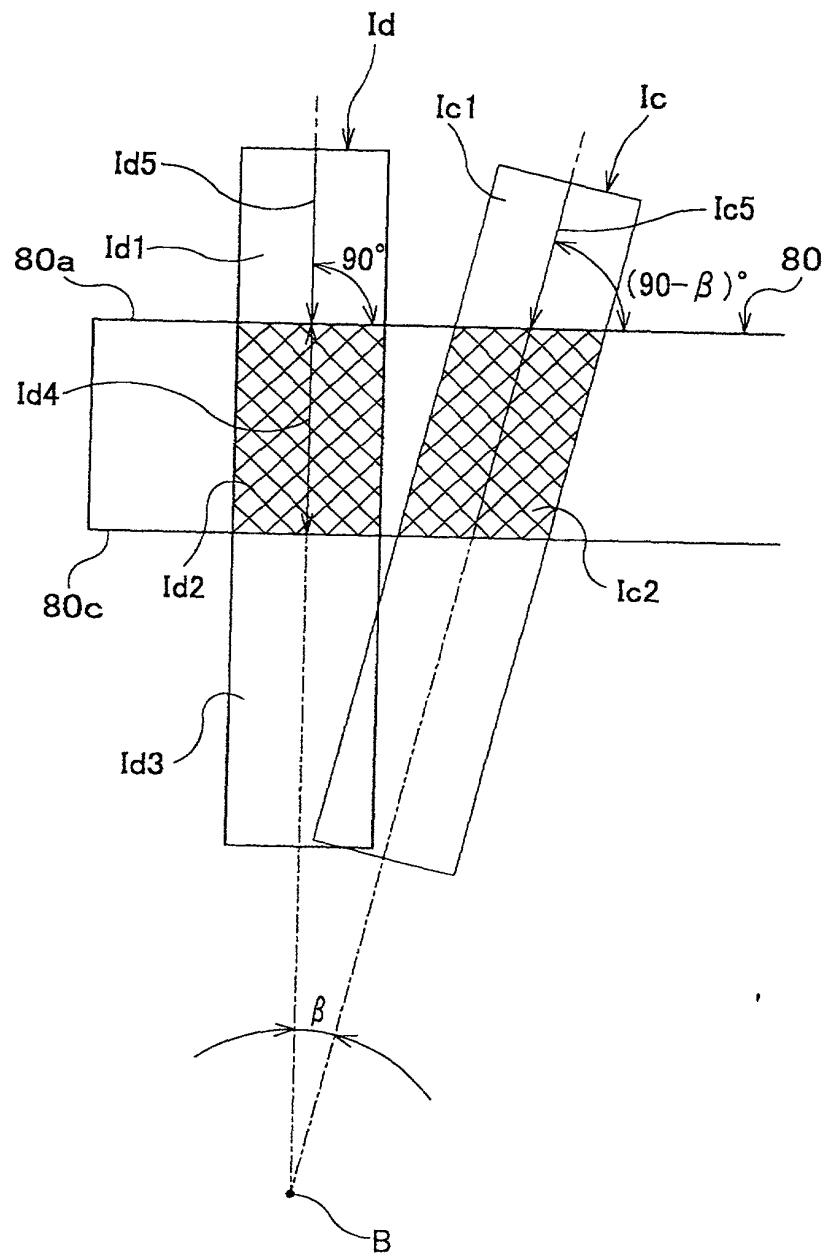


FIG.15

